

REMARKS/ARGUMENTS

Claims 1 and 3-18 are pending in the Application. Claim 1 is currently amended to limit the “weight average molecular weight of the polymer (A) . . . [to] 5000 to 100000” and thus incorporate the limitations of previously presented Claim 2. Accordingly, Claim 2 is cancelled. The other amendments to Claim 1 are editorial.

New Claims 15-18 are directed to flowability improvers for engineering plastics which comprise a polymer (A) consisting essentially of monomer unit (a1) and monomer unit (a2), wherein polymer (A) has a weight average molecular weight of 5000 to 100000. Support therefore is found in original Claim 3 and in the Specification at [0006; 0008; 0010; 0012; 0013; and 0014]. See specifically the Specification’s teaching of a highly transparent system having a two-component flowability improver system at [0013]. The transitional phrase “consisting essentially of” is conventionally employed to limit a composition to the specified materials “and others that do not materially affect the basic and novel characteristic(s)” of the claimed invention. *In re Herz*, 537 F.2d 549, 551-52 (CCPA 1976). See also *AK Steel Corp. v. Sollac*, 344 F.3d 1234, 1239 (Fed. Cir. 2003)(The transitional phrase “consisting essentially of” covers products which include the listed materials and unlisted materials which “do not materially affect the basic and novel properties of the invention.”) Thus, new Claims 15-18 are closed to monomeric units which deny the polymer (A) component its ability to function as a flowability improver for engineering plastics.

The Examiner objected under 35 U.S.C. 135(a) to Applicant’s previous amendments to the Specification at page 23, line 7 [0035], which relabeled the original “(Examples 1 to 7, Comparative Examples 1 to 3)” as (Examples 1 to 6, Referential Example 1, Comparative Examples 1 to 3), and at page 24, Table 2, which relabeled original “Example 7” as Ref. Ex. 1 as adding new matter to the Specification. Office Action dated November 24, 2009 (OA), page 2, paragraph 3. The Examiner also required Applicant to cancel the new matter in reply

(OA, p. 2, last sentence). Accordingly, the Specification is currently amended at pages 23 and 24 to reinstate the originally filed language and original designations.

No new matter is added.

Objection under 35 U.S.C. 135

In the Office Action dated November 24, 2009 (OA), Examiner objected to Applicant's previous amendments to the Specification at pages 23-24 and required Applicant to cancel the new matter in response (OA, p. 2, ¶ 3). However, in the Advisory Action dated April 6, 2010 (AA), the Examiner indicated that the amendment will be entered "[f]or purposes of appeal" (AA, p. 1, ¶ 7). Accordingly, Applicant herein again acts as directed to cancel the objectionable designations and reinstate the original language and designations at pages 23-24 of the Specification. Accordingly, the Examiner's objections under 35 U.S.C. 135 should be withdrawn.

Rejections of Claims 1 and 3-5 under 35 U.S.C. 102(b) over Kawakami

Previously presented Claims 1 and 3-5 were rejected under 35 U.S.C. 102(b) as anticipated by Kawakami (JP 59-078219, published May 7, 1984)(OA, p. 3, ¶ 4). As did the Examiner, we refer to the machine English translation of the Japanese patent publication of record. The rejection should be withdrawn.

Applicant's Claim 1, as currently amended, is directed to a flowability improver for engineering plastics which comprises a polymer (A) comprising 50-99.5 mass% of aromatic vinyl monomer unit (a1), 0.5-50 mass% of a phenyl or substituted-phenyl (meth)acrylate monomer unit (a2), and 0-40 mass% of another monomer unit (a3); wherein the polymer (A) has a "weight average molecular weight of 5000 to 100000" (emphasis added). Previously presented dependent Claim 2, now cancelled, limited polymer (A) to a weight average molecular weight of 5000 to 100000. Therefore, Claim 2 was not rejected as anticipated by Kawakami. Presumably then, the Examiner's rejection is not applicable to currently

amended Claims 1 and 3-5 which are all limited to a flowability improver comprising a polymer (A) which has a weight average molecular weight of 5000 to 100000 and should be withdrawn.

The Examiner found that Kawakami describes a polymer formed from 15 wt% t-butyl styrene, 40 wt% styrene, and 45 wt% phenyl methacrylate having a molecular weight of 140000 (Kawakami, pp. 7-8, copolymer (4))(OA, p. 3, ¶ 4). The Examiner found (OA, p. 3, ¶ 4; emphasis added):

Copolymer has improved fluidity and thermal stability in the molten state and can be molded by injection molding Given that compositional limitations are met, it is the examiner's position that copolymer of Kawakami . . . is inherently capable of functioning as a flowability improver for engineering plastics.

The Examiner's finding of inherency does not apply to currently amended Claim 1 because Kawakami's copolymer (4)(Kawakami, pp. 7-8, copolymer (4)) does not satisfy the average weight average molecular weight of 5000 to 100000 for polymer (A) which Applicant's current Claims 1 and 3-5 require.

Because, Kawakami does not describe a flowability improver comprising the polymer (A) Applicant currently claims, the rejection under 35 U.S.C. § 102(b) over Kawakami should be withdrawn.

Rejections of Claims 1-9 and 12-14 under 35 U.S.C. 103 over Kawakami in view of Fischer

Previously presented Claims 1-9 and 12-14 were rejected under 35 U.S.C. 103 over Kawakami in view of Fischer (U.S. Patent 4,906,696, issued March 6, 1990)(OA, p. 3, ¶ 5). The rejections should be withdrawn.

The Examiner pointed to Fischer's Example 10 (Fischer, col. 10, lines 15-31). In Example 10, Fischer describes a polymer prepared by polymerizing 60 parts by weight MMA (methyl methacrylate), 20 parts by weight α -MS (α -methylstyrene), and 20 parts by weight PhMA (phenyl methacrylate)(MW=89000). In Example 11, Fischer describes a polymer prepared by polymerizing 55 parts by weight MMA, 20 parts by weight α -MS, and 20 parts

by weight PhMA (MW=130000). In Example 12, Fischer describes a polymer prepared by polymerizing 45 parts by weight MMA, 10 parts by weight S (styrene), and 45 parts by weight PhMA (MW=102000). In each example, the proportion of aromatic vinyl monomer (a1) is no more than 20% by mass. In all of Applicant's currently amended and new claims, the flowability improver comprises polymer (A) which comprises no less than 50% by mass of aromatic vinyl monomer (a1). Accordingly, no flowability improver Applicant claims is either described or reasonably suggested by Fischer.

The Examiner also pointed to Fischer's Example 61. That thermoplastic blend comprises 90 parts by weight of a polycarbonate resin mixed with 10 parts of the copolymer of Fischer's Example 10 (OA, p.4).

Based on Fischer's closest examples and general teachings as a whole, the Examiner concludes that persons having ordinary skill in the art would not have been led to limit the proportions of the monomers in the copolymers Fischer discloses to the specific proportions taught in its examples and elsewhere (OA, p. 4). Rather, the Examiner finds that Fischer generally suggests that the melt viscosity of moldable polycarbonate resins may be improved by the addition of any and all thermoplastic polymethacrylate copolymers in a wide range of proportions without detrimentally affecting other significant properties (OA, p. 4). According to the Examiner (OA, p. 4), the only limitation on the molecular weight and monomer proportions for the flowability improvers taught by Fischer is (OA, p. 4), "As a rule compatibility decreases with increased molecular weight and the preferred molecular weight is from 5,000 to 150,000 (column 6, lines 48-66)."

To the contrary, Fischer does not reasonably suggest making and using a flowability improver comprising a copolymer made from a polymerizable monomer composition with more than 40 wt% of the optional α,β -unsaturated monomers (Fischer: Abstract; col. 3, ll. 40-66; col. 4, ll. 27-41; col. 5, ll. 18-50; and col. 6, ll. 25-35). Fischer's α,β -unsaturated

monomers include aromatic vinyl monomers such as styrene and α -methylstyrene (Fischer, col. 4, ll. 27-30; col. 6, ll. 29-35). On the other hand, Applicant's currently claimed flowability improver comprises a polymer (A) formed from a composition of monomers comprising at least 50% by mass of an aromatic vinyl monomer (a1).

Applicant's Specification further teaches that superior flowability is obtained using the claimed "flowability improver" in melt molding engineering plastics because of its "phase separation behavior" (Spec. [0007]). When Applicant's claimed "flowability improver" is used in melt molding engineering plastics (Spec., [0007]; emphasis added), "The claimed flowability improver for engineering plastics of the present invention has a phase separation behavior at the time of melt molding with engineering plastics such as a polycarbonate resin and has compatibility (affinity) with good level of peel resistance in the temperature range of use of the molded articles. By this reason, the present flowability improver can impart remarkable melt flowability (moldability) and peel resistance of engineering plastics by mixing with engineering plastics." Thus, Applicant's copolymer compositions improve melt flowability (moldability) by promoting phase separation.

On the other, Fischer does not appear to want the phase separation which normally occurs when increasing the molecular weight of the copolymer to happen. Fischer expressly states (Fischer, col. 6, ll. 48-52; emphasis added):

It is known that the compatibility of polymers in blends depends on their degrees of polymerization. As a rule the compatibility decreases with increasing molecular weight of the polymers, with the blend then becoming two-phased or multiphased.

Fischer would have taught persons having ordinary skill in the art that higher molecular weight copolymers and copolymers having an aromatic vinyl monomer content of more than 40 wt% are not suitable for improving the melt viscosity of engineering plastics. However, lower molecular weight copolymers and copolymers having an aromatic vinyl monomer content of 40 wt% or less, e.g., polymers formed from monomeric compositions

comprising 45-60 parts by weight MMA, 10-20 parts by weight MS or S, and 20-45 parts by weight PhMA (Fischer's Examples 10-12), are suitable for improving the melt viscosity of engineering plastics. Thus, Fisher would not have led persons having ordinary skill in the art to use Kawakami's copolymers made from a monomeric composition comprising 15 parts by weight of t-butyl styrene, 40 parts by weight of styrene, and 45 parts by weight of phenyl methacrylate to improve the melt viscosity of engineering plastics..

Nor does Kawakami reasonably suggest mixing its high molecular weight copolymers with other engineering plastics to improve their melt viscosities. Nor does Kawakami reasonably suggest that its high molecular weight copolymers would be compatible with, or useful as flowability improvers for, moldable polycarbonate resins. To the contrary, Fischer reasonably would have led persons having ordinary skill in the art to understand that highly polymerized, higher molecular weight copolymers comprising 55 mass% of aromatic vinyl monomers of the kind Kawakami exemplifies (Kawakami, pp. 7-8 (4) MW -140000), would not be useful as flowability improvers for engineering plastics because they promote phase separation which Fischer finds undesirable (Fischer, col. 6, ll. 48-52).

Kawakami's copolymers are basic thermoplastic polymer components of the compositions disclosed for injection molding, compression molding, etc. (Kawakami, p. 2, last ¶). Nowhere does Kawakami reasonably suggest that any of the copolymers it describes and/or teaches may have a molecular weight of less than 110000 and are "capable of functioning as a flowability improver for engineering plastics". To the contrary, Kawakami's copolymers are the main thermoplastic polymeric components of Kawakami's disclosed optical elements obtained by molding the copolymers (Kawakami, p. 2, ¶ 2). Kawakami's copolymers all have a molecular weight of at least 110000, and the only copolymer formed from a monomeric mixture comprising a phenyl or substituted-phenyl (meth)acrylate has a molecular weight of 140000 (Kawakami, pp. 7-8, bridging ¶). Applicant's claimed

flowability improver comprises a polymer (A) having at least 50 mass% of an aromatic vinyl monomer and a weight average molecular weight of 5000 to 100000. Neither Fischer nor Kawakami, nor any combination thereof, reasonably suggests the flowability improver Applicant currently claims.

Kawakami's copolymers also have a high thermal deformation temperature, high impact strength, and low decomposability. All of Kawakami's copolymers excel in high temperature optical properties and are moldable thermoplastics which show high temperature flowability during molding (Kawakami, p. 6, ¶ 1). The kind of improved high temperature flowability Kawakami describes, however, appear to be unrelated to the properties required for use as a "flowability improver for [other] engineering plastics". Kawakami reasonably would not have suggested adding its copolymers having superior moldability to engineering plastics as a flowability improvers. Rather, Kawakami teaches that its copolymer are engineering plastics which themselves have superior moldability.

The inventive concept and properties of Applicant's claimed invention are not related to the properties of the main thermoplastic copolymer components of moldable compositions which themselves show superior high temperature flowability and need not be improved. In fact, Kawakami appears to teach away from using its copolymers as flowability improvers in melt molding engineering plastics. Kawakami states (Kawakami, pp. 3-4, bridging ¶):

While the fluidity of a resin generally increases when the molecular weight is reduced, it results in a decrease in heat distortion temperature and, thus deterioration of heat resistance. Therefore, there has been a demand for a resin composition with improved fluidity, high heat distortion temperature, and satisfactory moldability.

Applicant's Specification teaches that superior flowability is unexpectedly obtained using the claimed "flowability improver" when melt molding engineering plastics because a phase separation results at the time of melt molding (Spec. [0007]):

The flowability improver for engineering plastics of the present invention has a phase separation behavior at the time of melt molding with engineering plastics such as a polycarbonate resin and has compatibility (affinity) with good level of peel

resistance in the temperature range of use of the molded articles. By this reason, the present flowability improver can impart remarkable melt flowability (moldability) and peel resistance of engineering plastics by mixing with engineering plastics.

Kawakami does not suggest using its copolymers as flowability improvers or mention any of the properties and/or characteristics which Applicant requires for its claimed polymer (A) to suitably function as a flowability improver for engineering plastics. The greater weight of the evidence of record indicates that the copolymers Kawakami describes and/or reasonably suggests do not and will not inherently, necessarily, or inevitably function as a flowability improver for engineering plastics. Polymer (A) of Applicant's claimed flowability improver has a maximum weight average molecular weight far below the molecular weight of any copolymer described and/or suggested by Kawakami. The "flowability improver for engineering plastics" Applicant currently claims is neither anticipated by Kawakami, nor obvious in view of the combined teachings of Fischer and Kawakami.

To rebut any suggestion that the thermoplastic compositions and the molded articles of Applicant's Claims 6-9 and the flowability improvers of Applicant's previously presented Claims 12-14 and new Claims 16-18, formed from 60 to 99.5% by mass of aromatic vinyl monomer (Claim 14), 75 to 90% by mass of aromatic vinyl monomer (Claim 13), and 75 to 99.5% by mass of aromatic vinyl monomer (Claim 12), would have been prima facie obvious to a person having ordinary skill in the art in view of the combined teachings of Fischer and Kawakami, Applicant points to Production Examples 1-6 in Applicant's Table 2 (Spec., p. 24). Production Examples 1-6 show that polycarbonate compositions were improved by Applicant's claimed flowability improvers including 60-80% by mass of styrene and 20-39% by mass of PhMA (see the corresponding improver compositions in Applicant's Table 1 at page 22 of the Specification). Those examples show far superior melt flowability and chemical resistance than do comparative compositions comprising more than 50 mass% of

styrene but no phenyl or substituted phenyl (meth)acrylate monomer (Table 2, Comparative Example 2) and comparative compositions comprising less than 50 mass% of styrene and more than 50% by mass of phenyl or substituted phenyl (meth)acrylate (Table 2, Referential Example 1). Applicant suggests that the superior results reported in Production Examples 1-6 of Applicant's Specification for the claimed flowability improvers satisfactorily rebut any prima facie case of obvious said to be established over the combined teachings of Fischer and Kawakami. Accordingly, the evidence of record as a whole denies any possible suggestion that the thermoplastic compositions and molded articles of Applicant's Claims 6-9 and the flowability improvers of previously presented Claims 12-14 and new Claims 16-18 would have been prima facie obvious in view of the combined teachings of Fischer and Kawakami.

Applicant emphasizes again that the flowability improver of every one of Applicant's current claims comprises a polymer (A) having a weight average molecular weight of 5000 to 100000. Applicant emphasizes again that the flowability improver of every one of Applicant's current claims comprises a polymer (A) having at least 50 mass% of an aromatic vinyl monomer. And, Applicant now further emphasizes that the polymer (A) of the flowability improver of new Claims 15-18 "consists essentially of" the specified monomers in the specified proportions and is otherwise closed to monomers which materially affect the flowability-improving properties and characteristics of the polymer (A) component.

Accordingly, no polymer (A) encompassed by any of Applicant's current claims is disclosed or reasonably suggested by Fischer, Kawakami, or any reasonable combination thereof. Fischer not only seeks to limit the molecular weight of its melt viscosity improvers (Fischer, col. 6, ll. 48-52), but its improvers are also copolymers outside the scope of Applicant's polymer (A). Kawakami's copolymers have a molecular weight of at least 110000 so to increase its heat distortion temperature and improve its heat resistance and fluidity for moldability. The combined teachings of Fischer and Kawakami would not have

led persons having ordinary skill in the art to the specific flowability improvers Applicant now claims. Accordingly, the rejections of Applicant's claims under 35 U.S.C. 103 over Fischer in view of Kawakami should be withdrawn.

Rejections of Claims 10-11 under § 103 over Fischer in view of Kawakami and Okazaki

Previously presented Claims 10-11 were rejected under 35 U.S.C. 103 over Fischer in view of Kawakami and Okazaki (JP 11-181197, published July 6, 1999)(OA, p. 5, ¶ 6). The rejection of Claims 10-11 also should be withdrawn.

The Examiner found that Okazaki discloses polycarbonate compositions including a flowability improver comprising an aromatic vinyl monomer and monomers having polar groups. While Okazaki describes a flowability improver for polycarbonates which is a polymer formed from a monomeric composition comprising at least 50% by weight of an aromatic vinyl monomer and a polar group-containing monomer (Okazaki [0009-0018]), the polar group-containing monomers Okazaki employs in its flowability improver is not the phenyl or substituted phenyl (meth)acrylate required by Applicant's claims.

However, the Examiner nevertheless concludes that Applicant's claimed flowability improver and the claimed thermoplastic resin compositions therewith would have been obvious to persons having ordinary skill in the art in view of the combined teachings of Fischer, Kawakami, and Okazaki. Okazaki is relied upon for solely its teaching that polycarbonate compositions of the kind taught by Fischer may be injection molded into transparent articles such as automobile parts and electrical parts such as lamp covers because molded forms made from Fischer's improved polycarbonate compositions are said to have excellent transparency and mechanical strength. Whether or not it would have been prima facie obvious to persons having ordinary skill in the art to injection mold Fischer's polycarbonate compositions into automobile or electrical parts in view of Okazaki's teaching is immaterial to the patentability of the basic improver and/or improved compositions

Applicant currently claims. No flowability improver comprising a copolymer having a weight average molecular weight of 5000 to 100000 formed from a monomer composition comprising at least 50 mass% of an aromatic vinyl monomer or thermoplastic composition improved thereby which Applicant's claims would have been reasonably suggested by the combined teachings of Fischer and Kawakami for the reasons previously stated.

Accordingly, the Examiner's rejection of dependent Claims 10-11 should be withdrawn.

Rejection of Claim 3 under 35 U.S.C. 103 over Sato in view of Fischer

Previously presented Claim 3 was rejected under 35 U.S.C. 103 over Sato (JP 01-115914, published June 9, 1989) in view of Fischer (OA, p. 6, ¶ 7). The rejection should be withdrawn.

Sato describes a resin composition prepared by copolymerizing a monomeric composition comprising 20-65 wt% of a aromatic vinyl compound, 15-75 wt% of a phenyl methacrylate, and 5-30 wt% of a vinyl cyanide. The Examiner acknowledges that Sato is silent with respect to the weight average molecular weight of the resin (OA, p. 6, last sentence). Nor does Sato suggest that a resin formed from a monomeric composition comprising 20-65 wt% of a aromatic vinyl compound, 15-75 wt% of a phenyl methacrylate, and 5-30 wt% of a vinyl cyanide may be used as a flowability improver for thermoplastic compositions from which forms may be injection molded

Sato's resins are said to have excellent weather resistance, oil resistance, moisture resistance and optical properties. Sato's resins have a high degree of polymerization and are therefore "used as a molding material" (Sato, p. 6, 2nd ¶). Sato states (Sato, p. 8, 1st ¶):

The polymer obtained was . . . trial-molded by a small-scale biaxial extruder . . . and palletized [sic]. The pellet obtained was molded at 230°C by a small-scale injection molding machine to prepare a specimen with a thickness of 3 mm.

Sato also teaches (Sato, p.13, final ¶):

[The methacrylic resin of the present invention] can be used in a broad field, for example, parts such as automobiles, electric and electronic equipments, and OA equipments, mirrors, miscellaneous goods, etc.

Significantly, Sato teaches that its methacrylic resin has a high degree of polymerization (Sato, p. 6, 2nd full ¶). Sato's resin is a moldable copolymer. Polymer (A) of the flowability improver of each and every one of Applicant's current claims has a weight average molecular weight of no more than 100000. The prior art teachings of record, including Kawakami's disclosure, reasonably suggest that moldable methacrylate copolymers generally have a molecular weight of at least 110000. Since Sato's copolymer has a high degree of polymerization, is moldable, and reasonably would have been expected to have a high molecular weight in excess of 100000, Fischer would have suggested to persons having ordinary skill in the art that Sato's polymer is unsuitable for use as a flowability improver for engineering plastics such as polycarbonates. Fischer teaches that high degrees of polymerization and increasing molecular weight of a polymer detrimentally effect its compatibility with other resins and cause detrimental phase separation (Fischer, col. 6, ll. 48-52).

Persons having ordinary skill in the art reasonably would not have expected to use Sato's high molecular weight, moldable resin as a flowability improver for injection moldable polycarbonates not only because Sato's resin has a high average molecular weight but also because Sato's resin appears to have substantially the same properties as thermoplastic polycarbonate resins. Indeed, the excellent weather, water and oil resistance of Sato's resin appears to confirm Fischer's teaching (Fischer, col. 6, ll. 48-52) that polymers with a "high degree of polymerization" would not be compatible with other injection moldable engineering thermoplastics and thus would not be useful as a flowability improver for engineering plastics.

The Examiner relies upon Fischer's teaching that compatibility depends upon the degree of polymerization and can be improved by controlling the molecular weight (Fischer, col. 6, ll. 48-66). However, persons having ordinary skill in the art would have had no incentive to control the molecular weight of Sato's resin for use as flowability improvers based on compatibility criteria. To the contrary, Sato's resin desirably has the high degree of polymerization and a high molecular weight suitable for moldability. Neither Sato nor Fischer reasonably suggest that Sato's polymers may have utility as a flowability improver.

The water and oil resistance of Sato's polymers suggest that they are likely to be incompatible with other resins. Fischer's consistent teaching that polymers with a high degree of polymerization are incompatible with other resins reasonably suggests that Sato's resins would not be compatible with other injectable resins such as polycarbonates. Nor does Sato suggest that its methacrylic resin could or should be made compatible with other injectable resins such as polycarbonates or enable one skilled in the art to do so.

Applicant's Specification teaches that the currently claimed copolymers impart superior flowability to moldable thermoplastics, but contrary to Fischer's instruction, Applicant's Specification instructs that superior flowability is achieved when there is a desirable phase separation between the claimed flowability improvers and the thermoplastic engineering plastics at the time of melt molding (Spec. [0007]). Neither Sato, Fischer, nor Kawakami recognize or reasonably suggest that a polymer mixed with an engineering plastic should desirably exhibit phase separation at the time of melt molding an engineering plastic for any purpose. To the contrary, Fischer denies that polymeric mixtures showing phase separation have any utility whatsoever. Therefore, persons having ordinary skill in the art reasonably would not have been led to the invention Applicant claims by any combination of the teachings of Sato, Fischer, and Kawakami. Persons having ordinary skill in the art reasonably would not have been led by the applied prior art, especially Fischer, to the

copolymers taught by either Sato or Kawakami to improve the flowability of engineering plastics with any reasonable expectation of success. *In re O'Farrell*, 853 F.2d 894, 903 (Fed. Cir. 1988).

Finally, Applicant's new claims 15-18 are directed to a flowability improver comprising polymer (A) consisting essentially of momomer units (a1) and monomer units (a2). Polymer (A) of the flowability improver of new Claims 15-18 is closed to 5-30 wt% of a vinyl cyanide monomer which (1) contributes to increase the molecular weight above 100000, (2) contributes to form a resin suitable for moldability, (3) makes the formed resin water and oil resistant and thus incompatible with other moldable resins, and (4) makes the formed resin unsuitable for use as a flowability improver.

The rejection of Claim 3, which depends from currently amended Claim 1, should be withdrawn.

For the reasons stated herein, the prior objections to the Specification and rejections of claims no longer apply. Applicant's currently amended claims are patentable over the applied prior art and in condition for allowance. Early Notice of Allowance is requested.

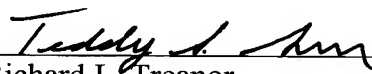
Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, L.L.P.
Norman F. Oblon

Customer Number

22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 07/09)



Richard L. Treanor
Attorney of Record
Registration No. 36,379

Teddy S. Gron
Registration No. 63,062